

Claims

1. A steering device for an agricultural harvesting machine having a longitudinal central plane, the agricultural harvesting machine can be propelled in a normal forward driving direction and comprises a pair of front wheels as well as a pair of rear wheels mounted to a rear axle, the rear wheels are arranged behind the front wheels relative to the normal forward driving direction, wherein the steering device comprises a pivot support that is mounted on the rear axle, as well as a wheel carrier that is pivotally supported on the pivot support and on which a rear wheel is rotatably supported such that the rear wheel is rotatable about a rotational axis, the wheel carrier can be pivoted relative to the pivot support about a pivot axis to steer the vehicle, characterized by the fact that the pivot axis is inwardly inclined toward the longitudinal central plane of the harvesting machine and inclined rearward relative to the normal forward driving direction.

2. The steering device as defined by claim 1 wherein the pivot support comprises a yoke having an upper arm and a lower arm, the wheel carrier is pivotally mounted between the upper and lower arms by a steering pin, the steering pin and the upper and lower arms define two mounting points of the wheel carrier.

3. The steering device as defined by claim 2 wherein one of the mounting points of the wheel carrier is offset forward of the rotational axis of the rear wheel relative to the forward driving direction.

4. The steering device as defined by claim 2 wherein both mounting points of the wheel carrier are offset forward of the rotational axis of the rear wheel relative to the forward driving direction.

5. The steering device as defined by claim 1 wherein each of the rear wheels have an upper side and a lower side, when the rear wheels are in a straight ahead position the rotational axis of the rear wheel is arranged at an angle to the horizontal such that the upper side of the rear wheel is situated farther outward from the longitudinal center plane than the lower side.

6. The steering device as defined by claim 1 wherein the agricultural harvesting vehicle is a combine.

7. A steering device for an agricultural harvesting machine having a longitudinal central plane, the agricultural harvesting machine can be propelled in a normal forward driving direction and comprises a pair of front wheels as well as a pair of rear wheels mounted to a rear axle, the rear wheels are arranged behind the front wheels relative to the normal forward driving direction, wherein the steering

device comprises a pivot support that is mounted on the rear axle, as well as a wheel carrier that is pivotally supported on the pivot support and on which a rear wheel is rotatably supported such that the rear wheel is rotatable about a rotational axis, the wheel carrier can be pivoted relative to the pivot support about a pivot axis to steer the vehicle, characterized by the fact that the pivot axis is inwardly inclined toward the longitudinal central plane of the harvesting machine.

8. The steering device as defined by claim 7 wherein the pivot support comprises a yoke having an upper arm and a lower arm, the wheel carrier is pivotally mounted between the upper and lower arms by a steering pin, the steering pin and the upper and lower arms define two mounting points of the wheel carrier.

9. The steering device as defined by claim 8 wherein one of the mounting points of the wheel carrier is offset forward of the rotational axis of the rear wheel relative to the forward driving direction.

10. The steering device as defined by claim 8 wherein both mounting points of the wheel carrier are offset forward of the rotational axis of the rear wheel relative to the forward driving direction.

11. The steering device as defined by claim 7 wherein each of the rear wheels have an upper side and a lower side, when the rear wheels are in a straight ahead position the rotational axis of the rear wheel is arranged at an angle to the horizontal such that the upper side of the rear wheel is situated farther outward from the longitudinal center plane than the lower side.

12. The steering device as defined by claim 7 wherein the agricultural harvesting vehicle is a combine.

13. A steering device for an agricultural harvesting machine having a longitudinal central plane, the agricultural harvesting machine can be propelled in a normal forward driving direction and comprises a pair of front wheels as well as a pair of rear wheels mounted to a rear axle, the rear wheels are arranged behind the front wheels relative to the normal forward driving direction, wherein the steering device comprises a pivot support that is mounted on the rear axle, as well as a wheel carrier that is pivotally supported on the pivot support and on which a rear wheel is rotatably supported such that the rear wheel is rotatable about a rotational axis, the wheel carrier can be pivoted relative to the pivot support about a pivot axis to steer the vehicle, characterized by the fact that the pivot axis is inclined rearward relative to the normal forward driving direction.

14. The steering device as defined by claim 13 wherein the pivot support comprises a yoke having an upper arm and a lower arm, the wheel carrier is pivotally mounted between the upper and lower arms by a steering pin, the steering pin and the upper and lower arms define two mounting points of the wheel carrier.

15. The steering device as defined by claim 14 wherein one of the mounting points of the wheel carrier is offset forward of the rotational axis of the rear wheel relative to the forward driving direction.

16. The steering device as defined by claim 14 wherein both mounting points of the wheel carrier are offset forward of the rotational axis of the rear wheel relative to the forward driving direction.

17. The steering device as defined by claim 13 wherein each of the rear wheels have an upper side and a lower side, when the rear wheels are in a straight ahead position the rotational axis of the rear wheel is arranged at an angle to the horizontal such that the upper side of the rear wheel is situated farther outward from the longitudinal center plane than the lower side.

18. The steering device as defined by claim 13 wherein the agricultural harvesting vehicle is a combine.